

4.—*Man contemporaneous with Extinct Animals in South Africa.*—

By R. BROOM, M.D., D.Sc.

For a good many years there has been some evidence that man was contemporaneous with extinct animals in South Africa. Human implements have been found among the gravels at the Vaal River diamond diggings, and from the gravels have also been found teeth of *Equus capensis* and a species of *Mastodon*. But it has been quite impossible to say that man was contemporaneous from the uncertainty of the gravel deposits being of the same age.

At Bloembosch, near Darling, Cape Province, the sand-hills on shifting have revealed remains of *Bubalus baini* and *Equus capensis* in association with human implements. But though the evidence of contemporaneity was quite sufficient for me, it was not as convincing as could be desired.

At Haagenstad saltpan, about 30 miles north of Bloemfontein, a discovery has just been made which removes all possibility of doubt of a human race having inhabited South Africa at a time when there lived many large mammals now quite extinct.

Near the saltpan there is a hot spring which has issued from a large sand-hill. Baths have been erected to utilise the hot water, and recently excavations have been made into the hill to get nearer to the source of the spring. In cutting into the hill a thick deposit of beautiful peat was met with. The peat has evidently been formed by the roots of bushes and trees, and as the deposit is 8 or 10 feet in thickness, it must represent the growth of many years. Below the purer peat are another 8 or 10 feet of peaty sand, and underneath this a layer of broken bones, burnt wood, and human implements.

The Bloemfontein Museum authorities heard of the find, and Mr. Levisieur authorised Professor Potts and myself to visit the spot. That the more important finds have been preserved we owe to Mrs. Martha Johanna Venter, the very intelligent wife of the farmer who lives at the spot. She has made a large collection of the bones and other remains, and though unfortunately she has allowed many of the human implements to pass into the hands of unscientific curiosity

hunters, her collection reveals all that is required for at least a preliminary note.

The animals whose remains have been found form a most interesting and varied fauna.

*Equus capensis* is represented only by a single tooth so far as I observed in looking over the collection.

*Equus* sp.—There are teeth of a small *Equus*—probably one of the small Zebras.

*Hippopotamus amphibius*.—The remains of *Hippopotamus* are abundant. Very fine tusks, teeth, and jaws are represented in the collection besides limb bones, etc. I do not think the *Hippopotamus* differs from the present-day species, and some of the specimens must have been of great size.



FIG. 2.—*Connochaetes antiquus*. Broom.  $\times \frac{1}{4}$ .

*Phacochoerus aethiopicus*.—There are many fragmentary jaws, tusks, and other bones of the Wart Hog.

*Bubalus baini* is represented by numerous specimens of horn cores, skulls, jaws, teeth, limb bones, and vertebrae. Most of the bones have been broken by human agency.

*Connochaetes antiquus*, n. sp.—The animal of which the remains seem most abundant is a new species of Wildebeest. In the collection are many horn cores. In type the horn is intermediate between that of the two surviving South African species. Like that of the white-tailed Wildebeest, there is a very prominent flattened backward process at the base of the horn. From the base the horn curves much more outwards in this new species, and then less abruptly upwards and backwards. The curving will be better understood from the illustration.

The greatest length of the core from the base to the outer curve in a straight line is 343 mm., and from the posterior knob at the base to the tip following the posterior curvature is 465 mm.

*C. antiquus* is so nearly intermediate between the two South African living forms that one wonders if it may perhaps be the ancestor of both.

*Taurotragus oryx*.—There are a number of bones of the Eland, including the frontal region with horn cores.

*Cobus venterae*, sp. nov.—There are many horn cores of a species of *Cobus*. It is somewhat intermediate between the Waterbuck (*C. ellipsipyrmnus*) and the Lechwe (*C. leche*), but much nearer to



FIG. 3.—*Cobus venterae*. Broom.  $\times \frac{1}{3}$ .

the latter. From the existing Lechwe it differs in the curve of the horn and in the mode of implantation on the frontal bone.

Besides these readily recognisable forms there are remains of a number of small Carnivores and Ungulates, represented for the most part by teeth. Much work yet remains to be done in identifying these small forms. I failed to observe anything strikingly new, and probably most belong to existing species.

It is much to be regretted that the most interesting human implements have been scattered. The only two stone implements still left in the collection are a spear-head and a knife. The spear-head is 8 inches in length, about  $2\frac{1}{8}$  inches in greatest width, and about  $\frac{7}{8}$  inch thick at its thickest part. In section it is triangular, the flat side having a bulb of concussion, and the other side formed by the removal of two long flakes. The base has been trimmed by

the removal of another oblique flake, and by the formation of some small notches for the attachment of the spear-head to a wooden shaft. The other stone implement is evidently a knife. It is 5 inches in length. One side is flat and the other formed by the removal of three longitudinal flakes. Owing to incrustation from the hot spring the material of the implements could not be made out without chipping them.

Besides the stone implements there are a number of small wooden articles—pins, etc.—clearly shaped by human agency. And there are great quantities of burnt wood. Some of the logs are of large size, and show that there must have been much larger trees growing in the district than is now the case. I failed to detect any human bones in the collection. Possibly further exploration may reveal some. Till then some doubt must remain as to what human tribe lived in South Africa at the time of the Cape horse, the *Bubalus bairdi*, and the extinct *Wildebeest*.